Cardiac troponinI (cTnI) and the frequency of cardiocytes; P4HA2siRNA carrier was constructed.

Results 1.4 million cardiocytes can be obtained from one rat and the activity is above 90% and the purity reached to 95%. Cardiocytes began to adhere and grow after 4– 6 h, to prolife rate obviously after 12–24 h, and to converge together after 3–4 days. The cardiocytes showed sphericalm, fusiform and polygon shape in the visual field of inverted microscope. All the cells stretched out parapodium and beated spontaneously and rhythmically. The beat frequency of the cardiocytes was decreased in the H/R group and DMOG+ H/R group as compared with control $p<0.01$), while the beat frequency of the cardiocytes in DMOG+ H/R group was increased as compared with H/R group <0.01). The expression levels of HIF-1α, HO-1, VEGF, GLUT1 mRNA and the contents of cTnI and ICAM-1 were increased in the cardiocytes in the H/R group and DMOG+ H/R group $p<0.05$), The expression levels of HIF-1α, HO-1, VEGF, GLUT1 mRNA were increased in the cardiocytes pretreated with DMOG as compared with the cardiocytes from H/R injury ($p<0.01$, $p<0.05$), while the levels of cTnI and ICAM-1 were significantly decreased $p<0.05$). Exogenous bolting effect target with Western blot has been finished.

Conclusions It is suggested that upregulated expression of HIF−1a may be involved in the process of protection on cultured cardiocytes in anoxia/reoxygenation injury.

GW23-e1761

THE PRELIMINARY STUDY OF PROTECTIVE INFLUENCE OF HYPOXIA INDUCIBLE FACTOR-1 (HIF-1) ON CULTURED CARDIOCYTES WITH HYPOXIA—REOXYGENATION (H/R)

doi:10.1136/heartjnl-2012-302920a.143

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Objectives Myocardial infarction is one of the Serious event of coronary artery disease and threatens peoples' healthy and quality of life. Now, the main therapic methods of myocardial infarction are thawing technique, PTCA and coronary artery pass-b technique and these methods make heart experience Myocardial ischaemia-Reperfusion Injury. Hypoxia-inducible factor-1α (HIF-1) is a main transcription regulatory factor which maintains oxygen homeostasis in mammal in vivo. Codogenic proteinum of target gene can participate anaerobic metabolism, erythrocytopoiesis and vasoformation in order to protect ischemical reperfusion injury. The objective of study is to investigate the influence of hypoxia inducible factor-1 (HIF-1) on cultured cardiocytes with hypoxia−reoxygenation (H/R).

Methods Myocardial cells were isolated and Cultured; Growth conditions of cardiocytes and beat frequency were observed by inverted microscope, the activity was detected by trypan blue dyeing and the purity was identified by Immune cytochemical staining; Cultured cardiocytes of neonatal SD rat s (1~3 day) were randomly divided into three groups: control group hypoxia–reoxygenation (H/R) group, (DMOG+H/R) group; Model of cardiocytes induced by H/R injury was established to mimic ischaemia/reperfusion injury in vivo; Prolyl 4-hydroxylase inhibitor DMOG was used to intervene the expression levels of HIF-1α, HO-1, VEGF, GLUT1mRNA, ICAM-1 and the influence of them on the levels of